

What is claimed is:

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1. A small footprint device comprising:
- a. at least one processing element;
  - b. memory,
  - c. a context barrier using said memory for isolating program modules from one another; and
  - d. a global data structure for permitting one program module to access information from another program module across said context barrier.
2. The small footprint device of claim 1 in which said context barrier allocates separate name spaces for each program module.
3. The small footprint device of claim 2 in which at least two program modules can access said global data structure even though they are located in different respective name spaces.
4. The small footprint device of claim 1 in which said context barrier allocates separate memory spaces for each program module.

5. The small footprint device of claim 4 in which at least two program modules can access said global data structure even though they are located in different respective memory spaces.

6. The small footprint device of claim 1 in which said context barrier enforces security checks on at least one of a principal, an object and an action.

7. The small footprint device of claim 6 in which at least one security check is based on partial name agreement between a principal and an object.

8. The small footprint device of claim 7 in which at least one program can access said global data structure without said at least one security check.

9. The small footprint device of claim 6 in which at least one security check is based on memory space agreement between a principal and an object.

10. The small footprint device of claim 9 in which at least one program can access a global data structure without said at least one security check.

11. A method of operating a small footprint device, comprising the step of separating program modules using a context barrier and permitting access to information across the context barrier using an global data structure.

12. The method of claim 11 in which the context barrier will not permit a principal to perform an action on an object unless both principal and object are part of the same context unless the request is for access to a global data structure.

13. A method of permitting access to information on a small footprint device from a first program module to a second program module separated by a context barrier, comprising the step of creating a global data structure which may be accessed by at least two program modules.

14. The method of claim 13 in which said program modules is in respective contexts and said global data structure is part of a supercontext.

15. A method of communicating across a context barrier separating program modules on a small footprint device, comprising the steps of:

a. creating a global data structure;

5           b. permitting at least one program module to write information to said global data structure; and

          c. having at least one other program module read information from said global data structure.

16. A computer program product, comprising:

a. a memory medium; and

5           b. a computer controlling element comprising instructions for implementing a context barrier on a small footprint device and for bypassing said context barrier using a global data structure.

17. The computer program product of claim 16 in which said medium is a carrier wave.

18. A computer program product, comprising:

a. a memory medium; and

5           b. a computer controlling element comprising instructions for separating a plurality of programs on a small footprint device by running them in respective contexts and for permitting one program to access information from another program by way of a global data structure.

19. The computer program product of claim 18 in which said medium is a carrier wave.

20. A carrier wave carrying instructions for implementing a global data structure for bypassing a context barrier on a small footprint device over a communications link.

5 21. A carrier wave carrying instructions over a communications link for separating a plurality of programs on a small footprint device by running them in respective contexts and for permitting one program to access information from another program using at least one global data structure.

5 22. A method of transmitting code over a network, comprising the step of transmitting a block of code from a server, said block of code comprising instructions for implementing a global data structure for bypassing a context barrier on a small footprint device over a communications link.

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